

2017 Water Audit Level 1 Validation Document

Audit Information:

Utility: Las Virgenes Municipal Water District PWS ID: 1910225
 System Type: Potable Audit Period: Calendar 2017
 Utility Representation: Dave Roberts, Coleman Olinger, Jan Dougall, Mike Hamilton, Eric Schlagecer, Jerry West
 Validation Date: 9/4/2018 Call Time: 12:00pm Sufficient Supporting Documents Provided: Yes

Validation Findings & Confirmation Statement:

Key Audit Metrics:

Data Validity Score: 65 Data Validity Band (Level): Band III (51-70) ILI: -0.33 Real Loss: -10.00 (gal/conn/day)
 Apparent Loss: 11.94 (gal/conn/day) Non-revenue water as percent of cost of operating system: 0.6%

The results of the audit present negative real loss, which is not plausible. The audit has been Level 1 validated, with confirmation of methodology and examination of summary supporting records. The underlying error(s) creating implausible metrics has not been determined from the summary data, which means the error(s) exist within raw data or measurement instrumentation. Advanced validation beyond Level 1 is required to resolve underlying error(s). The validator's opinion of priority areas needing investigation to resolve underlying error(s) are noted below:

- Level 2 validation on raw data for Billed Metered Authorized Consumption to determine and resolve any instances of potable volume duplication.
- Level 3 validation for improved understanding of Supply Meter (Own or Import) Master Meter Error: consider adopting or increasing the rigor of a source meter volumetric testing and calibration program, informed by the guidance provided in AWWA Manual M36 – Appendix A.
- Level 2 validation to confirm temporal alignment of Billed Metered Authorized Consumption with Water Supplied: account level pro-rating the first and last billing cycles of the audit period to better align consumption with actual dates of use and using read date as basis for reporting.

Certification Statement by Validator:

This water loss audit report has been Level 1 validated per the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34. All recommendations on volume derivation and Data Validity Grades were incorporated into the water audit. ☒

Validator Information:

Water Audit Validator: Drew Blackwell, Will Jernigan P.E. Validator Qualifications: Contractor for California Water Loss TAP

Validator Provided

2017 AWWA Water Audit Level 1 Validation

Water System Name:

Water System ID Number:

Water Audit Period:

Water Audit & Water Loss Improvement Steps:

Steps taken in preceding year to increase data validity, reduce real loss and apparent loss as informed by the annual validated water audit:

- Developed Water Loss Audit Team that includes members across the agency to develop needed information
- Increased the number of residential meters tested
- Developed an RFP for installation of a District-wide AMI/AMR system

Certification Statement by Utility Executive:

This water loss audit report meets the requirements of California Code of Regulations Title 23, Division 2, Chapter 7 and the California Water Code Section 10608.34 and has been prepared in accordance with the method adopted by the American Water Works Association, as contained in their manual, *Water Audits and Loss Control Programs, Manual M36, Fourth Edition* and in the Free Water Audit Software version 5.

Utility Provided

William T. McDermott
Dir. Conservation
outreach
Signature
10/1/18

Executive Name (Print)

Executive Position

Signature

Date